

# Synergy



**The Key to a Secure Environment**



# Synergy Enabled Services

- Fire Alarm / Life Safety



- Security



- Access Control



- System Monitoring



- Video Control





# Synergy Approvals

- Synergy enabled components contain the following listings as applicable to the component operation

***UL1076 Proprietary Burglar Alarm Units and Systems***

***UL1635 Digital Alarm Communicator System Units***

***UL636 Holdup Alarm Units and Systems***

***UL294 Access Control System Units***

***UL365 Police Station Connect***

***UL609 Local Burglary Alarm Units and Systems***

***UL864 Control Units for Fire Protective Signaling Systems***

***UL639 Intrusion Detection Units***

***UL1610 Central Station Burglar Alarm Units***



# Fire Alarm

- **Advanced System Design**

***Stand alone or Network  
Conventional or Analog  
Signature Advantage***

***Bells, Horns, Speakers, Strobes***



- Panel-to-Panel Token Ring
- Network
- Fast processing time
- Flexible programming
- utilities
- Modular design
- Designed for survivability
- Lower Owner operating costs
- Efficient installation costs

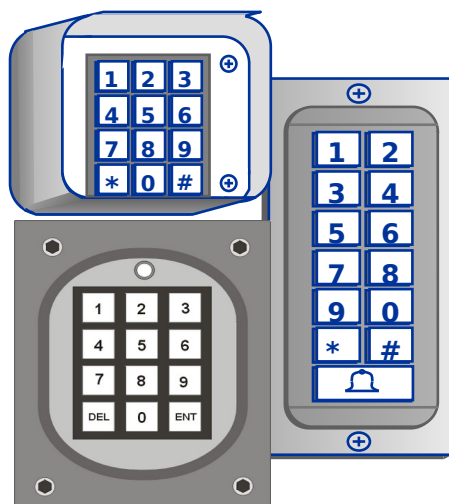
# Access Control



- **Readers and Badges**
  - Utilize standard reader technologies, reducing the expense of replacing readers enabling new developing reader technology
  - Use existing cards, reducing the expense of issuing new cards
  - EST 33 bit Card format – Unique format ensures that an identical card will never be produced



# Access Control



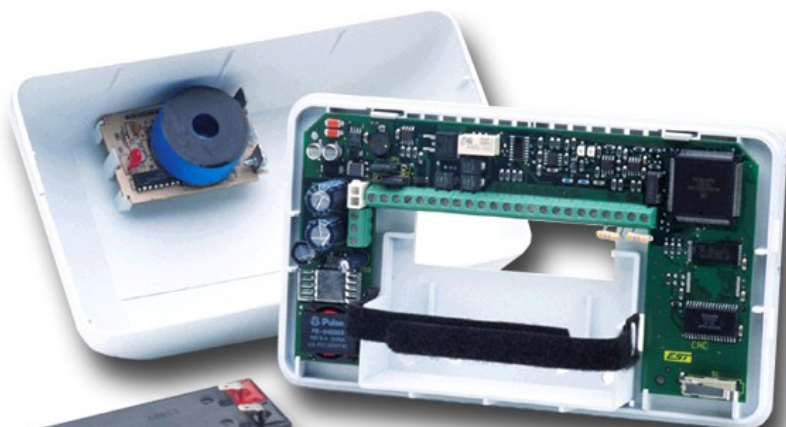
**2-Man  
Rule**

- **Readers and Badges**

- Card read only, card plus PIN
- PIN Schedule
- Disarm PIN security option
- Force Badge Out
- Timed Anti-Passback
- Logged Anti-Passback
- Strict Anti-Passback
- 2-Person Rule
- Irregular Cardholder privilege

# Access Control

- **Card Reader Controller (CRC)**



- Aesthetically Pleasing
- Common Power Supply for Locks, CRC and Card Readers.
- Self-sufficient operation
- Supports one ingress reader/keypad, one egress reader/keypad, one locking device, one request to exit device, one door monitor input, one automatic door opener output and one optional sounder



# Access Control

- **Card Reader Controller (CRC)**

**(2) 3-SACs per EST3 Panel**

**124 CRCs per EST3 Panel**

**Over 4000 CRCs per EST3 System**



- Easily Expandable
- Upgradeable Field
- Software
- Door Ajar Annunciation
- Event Storage
- Disabled Persons
- Feature
- Disarm Security
- Partitions
- 1200 Schedules per CRC
- Automatic Schedule
- Secure
- Delayed Egress
- Supervised wiring



# Access Control

- **Card Reader Controller (CRC)**
  - Two Sources for Power
  - Internal Batteries
  - Non-volatile database memory
  - Construction Card

***Up to 36,000 cards per CRC***

***Up to 20,000 history events***

***Local or centrally powered***



# Access Control

- **3-SAC Security / Access Control Module**

**RS485 Communications**

**Plug-in Rail Module**

**Independent Control**



- EST3 Plug in Rail
- Module
- Standard
- Communications
- Distributed Intelligence

# Access Control

- **Access Control Database (ACDB)**

**Wordprocessor**

**Access Control Database**

**Spreadsheets**

**Internet Browsers**



**Client / Server**

**LAN / WAN Networks**

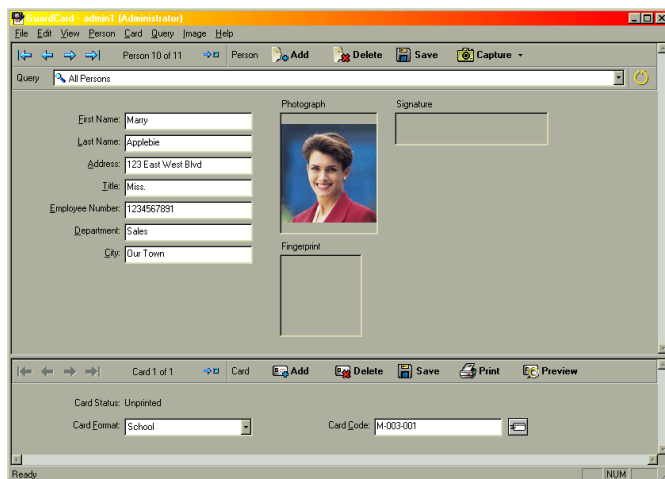
- Compatible with most desktop computers / laptops without dedicated PC resources
- Standard business application
- Standalone or Networked
- Flexible communications
- Flexible facility management
- Multiple tenants with common doors
- Separate tenant management
- Intelligent Holiday Scheduling
- Custom Report Generation

# Access Control

- Video Image & Badging Workstation



- G&A Imaging & Badging
- Integrated database
- Supports industry standard printers
- Composite or Digital Video





# Security

***Security and Fire***

***Up to 62 Keypads per 3-SAC***

***8 Line Graphic LCD***



- **Security Keypad Displays**
  - User Friendly Interface
  - Pass code timer
  - extension
  - Dual language support
  - Backlit display
  - Display fire and security events
  - Partition (area)
  - segmentation
  - 255 Partitions (areas) per EST3 system





# Security

**34' coverage**

**Adjustable patterns**

**Signature Advantage**

**Two alarm inputs**  
**Signature advantage**

- **Security Devices**

- Signature Motion Detectors (SIGA-MD)
- Signature Input Modules (SIGA-SEC2)
- Compatible with standard devices



# Video Control

***Supports most major  
video manufacturers***

***Full video switching***



- **Standard Video Control**

- Supports standard industry manufacturers
- Automated event viewing
- Pan / Tilt / Zoom control
- Trigger emergency video event recording
- Support pre-set camera positioning

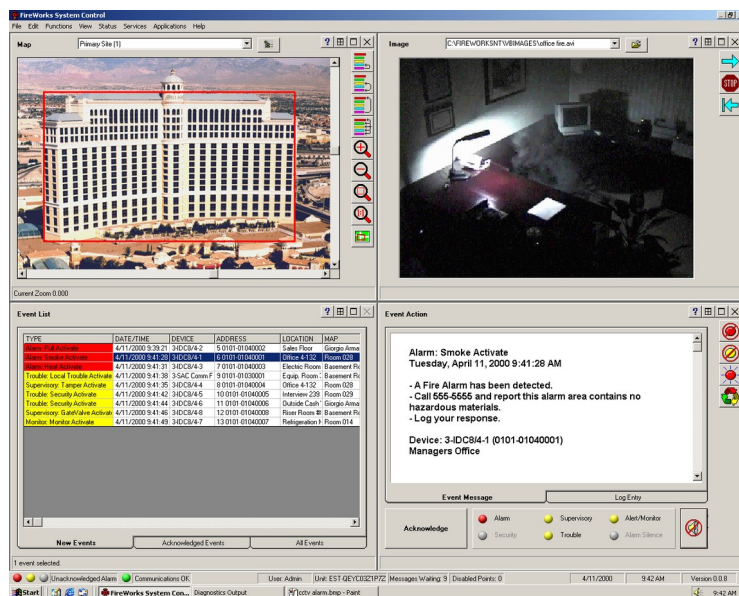


# System Monitoring

**Monitors all events**  
**Standalone or Network**



- **FireWorks**
  - Event monitoring using Fireworks
  - Logs and history
  - GUI Based Workstation
    - UL approved workstation
  - Software only Non-UL
  - Single or Multiple Workstations
  - Video Control Interface
  - Quad Display



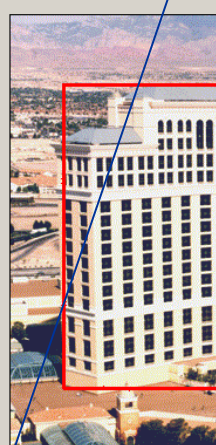






FireWorks System Control  
File Edit Functions View Status

Map Primary Site (1)



Current Zoom 0.000

Event List

TYPE	
Alarm: Pull Activate	4
Alarm: Smoke Activate	4
Alarm: Heat Activate	4
Trouble: Local Trouble Activate	4
Supervisory: Tamper Activate	4
Trouble: Security Activate	4
Trouble: Security Activate	4
Supervisory: GateValve Activate	4
Monitor: Monitor Activate	4

New Events

Acknowledged Events

All Events

1 event selected.

## Event List



TYPE	DATE/TIME	DEVICE	ADDRESS	LOCATION	MAP
Alarm: Pull Activate	4/11/2000 9:39:21	3-IDC8/4-2	5 0101-01040002	Sales Floor	Giorgio Arma
Alarm: Smoke Activate	4/11/2000 9:41:28	3-IDC8/4-1	6 0101-01040001	Office 4-132	Room 028
Alarm: Heat Activate	4/11/2000 9:41:31	3-IDC8/4-3	7 0101-01040003	Electric Room	Basement Ro
Trouble: Local Trouble Activate	4/11/2000 9:41:38	3-SAC Comm F	9 0101-01030001	Equip. Room	Basement Ro
Supervisory: Tamper Activate	4/11/2000 9:41:35	3-IDC8/4-4	8 0101-01040004	Office 4-132	Room 028
Trouble: Security Activate	4/11/2000 9:41:42	3-IDC8/4-5	10 0101-01040005	Interview 239	Room 029
Trouble: Security Activate	4/11/2000 9:41:44	3-IDC8/4-6	11 0101-01040006	Outside Cash	Giorgio Arma
Supervisory: GateValve Activate	4/11/2000 9:41:46	3-IDC8/4-8	12 0101-01040008	Riser Room #:	Basement Ro
Monitor: Monitor Activate	4/11/2000 9:41:49	3-IDC8/4-7	13 0101-01040007	Refrigeration	Room 014

New Events

Acknowledged Events

All Events

1 event selected.

Event Message

Log Entry

Acknowledge



Alarm



Supervisory



Alert/Monitor



Security



Trouble



Alarm Silence



Unacknowledged Alarm Communications OK

User: Admin

Unit: EST-QEYC0321PZZ

Messages Waiting: 9

Disabled Points: 0

4/11/2000

9:42 AM

Version 0.0.8





Event Action

Alarm: Smoke Activate  
Tuesday, April 11, 2000 9:41:28 AM

- A Fire Alarm has been detected.

- Call 555-5555 and report this alarm area contains no hazardous materials.

- Log your response.

Device: 3-IDC8/4-1 (0101-01040001)  
Managers Office

Event Message

Log Entry

Acknowledge

Alarm

Supervisory

Alert/Monitor

Security

Trouble

Alarm Silence

Managers Office

Event Message

Log Entry

Acknowledge

Alarm

Supervisory

Alert/Monitor

Security

Trouble

Alarm Silence

New Events

Acknowledged Events

All Events

1 event selected.

Unacknowledged Alarm

Communications OK

User: Admin

Unit: EST-QEYC03Z1P7Z

Messages Waiting: 9

Disabled Points: 0

4/11/2000

9:42 AM

Version 0.0.8

Start

FireWorks System Con...

Diagnostics Output

cctv alarm.bmp - Paint

9:42 AM

Map

Primary Site (1)

Camera

Pendant Camera (3)

Image

C:\FIREWORKSNT\VBIMAGES\gate\_valve.bmp



## Gate Valve

This device controls the water supply availability for the fire suppression sprinkler system.

STOP

New Events

Acknowledged Events

All Events

Acknowledge

Security

Trouble

Alarm Silence

1 event selected.

Unacknowledged Alarm

Communications OK

User: Admin

Unit: EST-QEYC03Z1P7Z

Messages Waiting: 1

Disabled Points: 0

4/11/2000

9:39 AM

Version 0.0.8

FireWorks System Con...

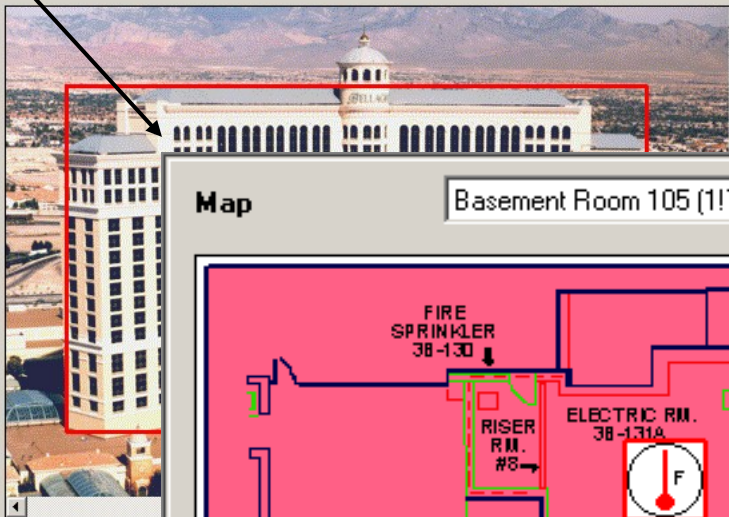
Diagnostics Output

main screen normal.bmp ~...

9:39 AM

Map

Primary Site (1)



Current Zoom 0.000

Event List

TYPE

Alarm, Pull Activate

New Event

1 event selected.

Unacknowledge

Current Zoom -0.200

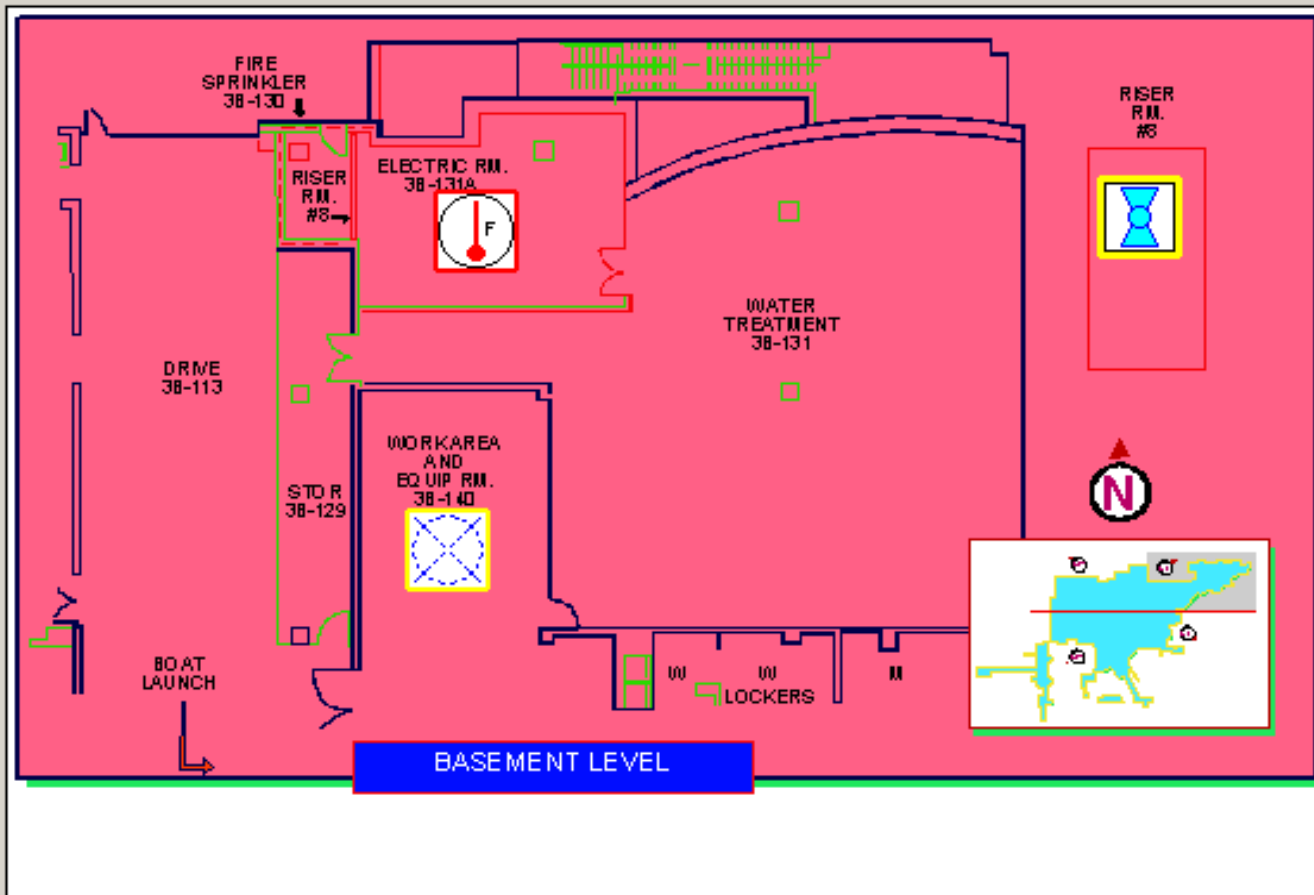
Camera

Pendant Camera (3)



Map

Basement Room 105 (1!T00000000!V00000000!T00000000!)



BASEMENT LEVEL

# System Monitoring

- **Central Station**

- Central Station monitoring
  - Standard transmission formats
  - Industry standard digital receivers

**SIA, 4/2, 3/1, Contact ID**

**255 Subscribers per module**

**Single Event, Dual Transmission**



# System Monitoring

- **3-Modcom Module**

- Standard EST3 rail module
- Multiple modules per EST3 system
- Single event transmission to multiple digital receivers
- 255 accounts per module
- Dialer and modem in one module

**Up to 10 modules  
per EST3 system**

**Supports ACDB connection**

**Multi-Functional module**





# System Monitoring



- **Pager Interface**
  - Supports TAP pager protocol
  - Digital alphanumeric message (up to 40 characters)

# System Monitoring

- **Concurrent Monitoring**



- Single alarm event displayed several places
  - Fireworks Workstation(s)
  - EST3 panels
  - Central Station
  - Pager
  - Printer
  - Keypad Displays
  - Annunciators



# ***Building Synergy***

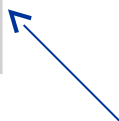
**Now that we understand the individual components of Synergy, let me show how to build your EST3 system with Synergy enabled components.**





# Building Synergy

- 64 Network Nodes (Panels) per EST3 System
- Over 160,000 points per EST3 System
- Network multiple EST3 Systems
- Stand alone or Peer-to-Peer Life Safety
- Accurate, rapid smoke and fire detection
- Sprinkler system monitor
- Multi-Channel emergency communication
- HVAC smoke control



SDDC



SIGA-IPHS



SIGA-IPHS



SIGA-IPHS

## Fire Alarm Backbone



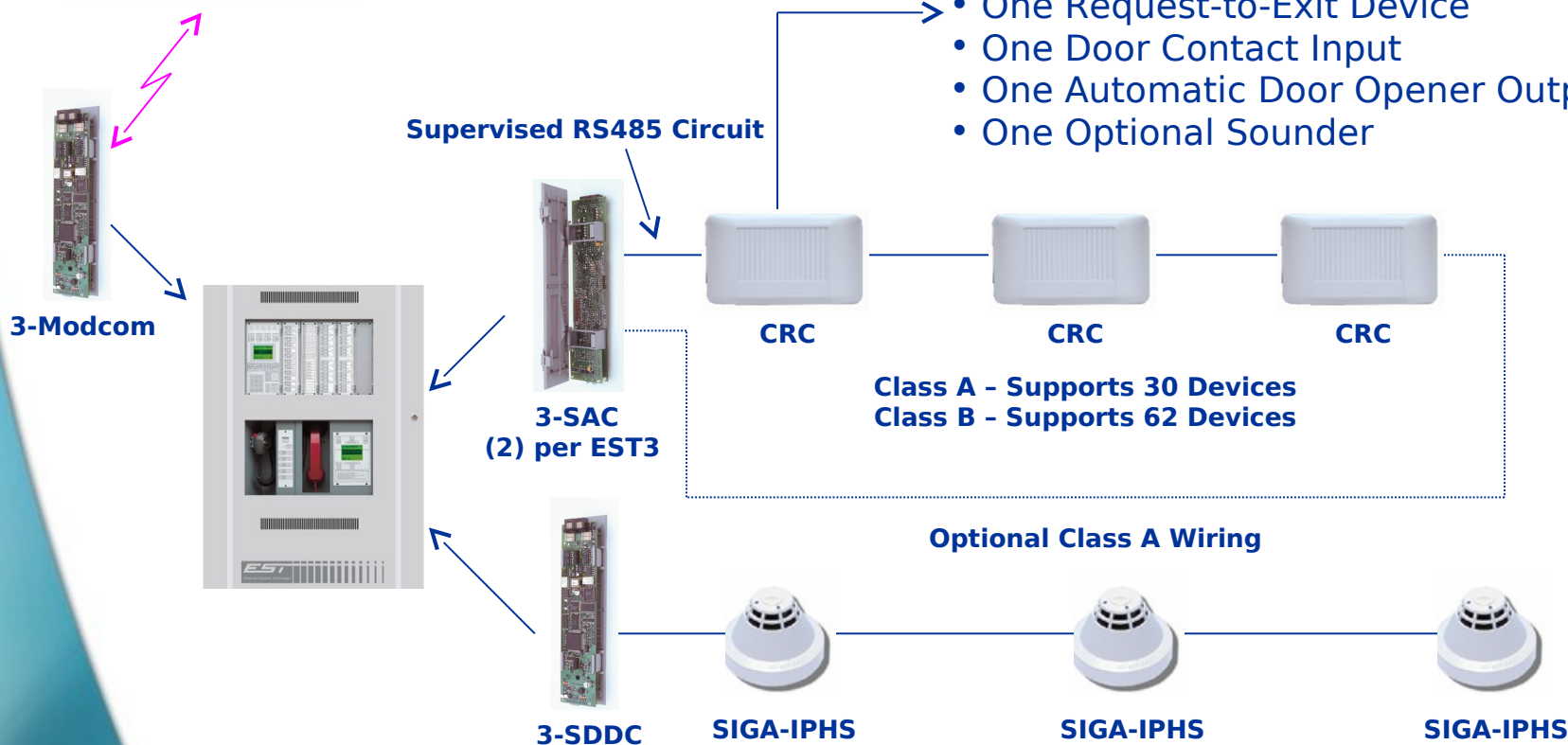
# Building Synergy

## Access Control Database



- Management Software
- Non-Dedicated PC
- Modcom or Direct Connect

- One Ingress Reader/Keypad
- One Egress Reader/Keypad
- One Locking Device
- One Request-to-Exit Device
- One Door Contact Input
- One Automatic Door Opener Output
- One Optional Sounder



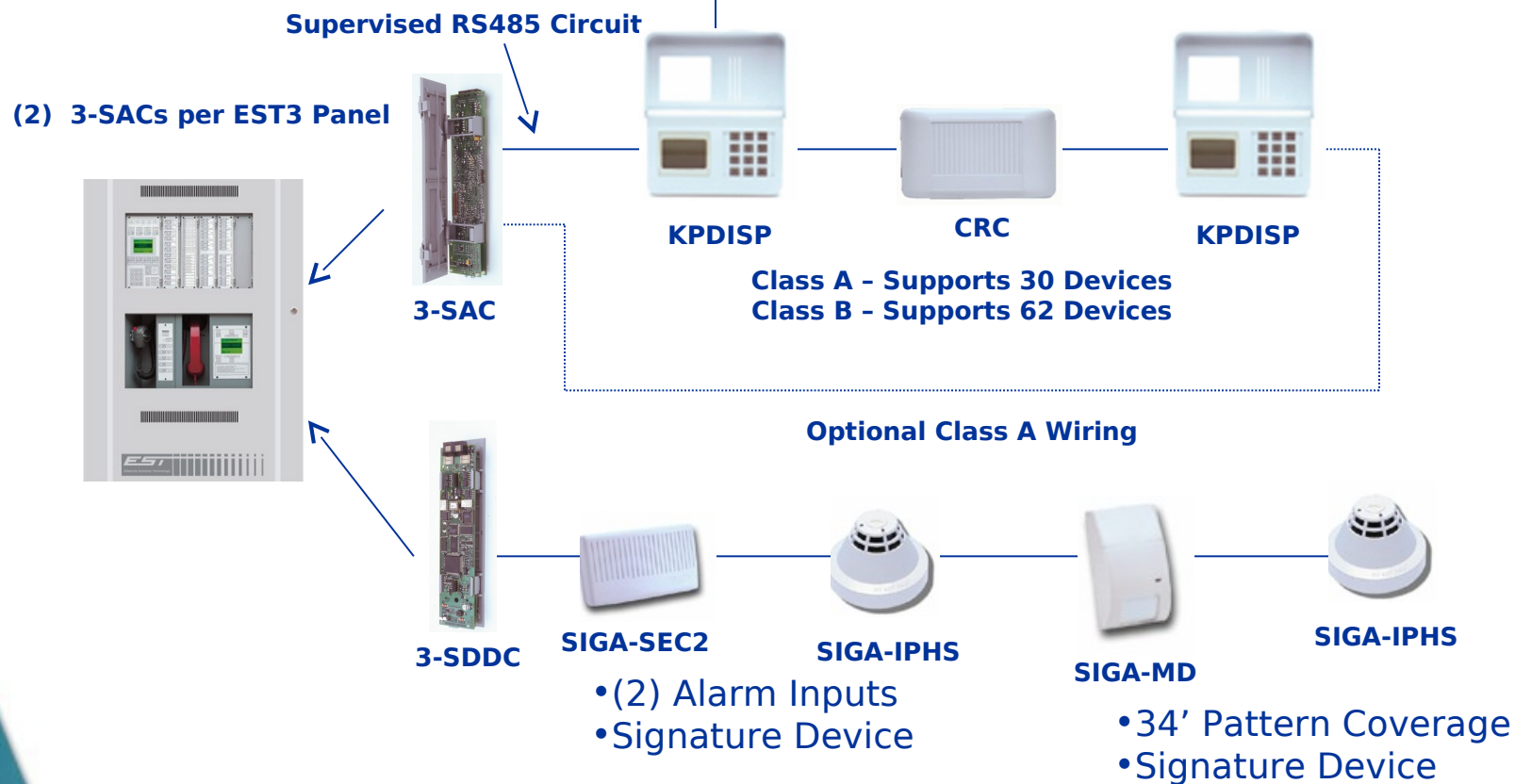
## Fire Alarm - Add Access Control





# Building Synergy

- Concurrent Bilingual
- Displays Fire and Security Events
- Arm, Disarm, Bypass Functions
- 255 Partitions per EST3 System
- Event Storage (500)



## Fire Alarm - Access Control - Add Security



# Building Synergy

Access Control Database



Central Station Monitoring



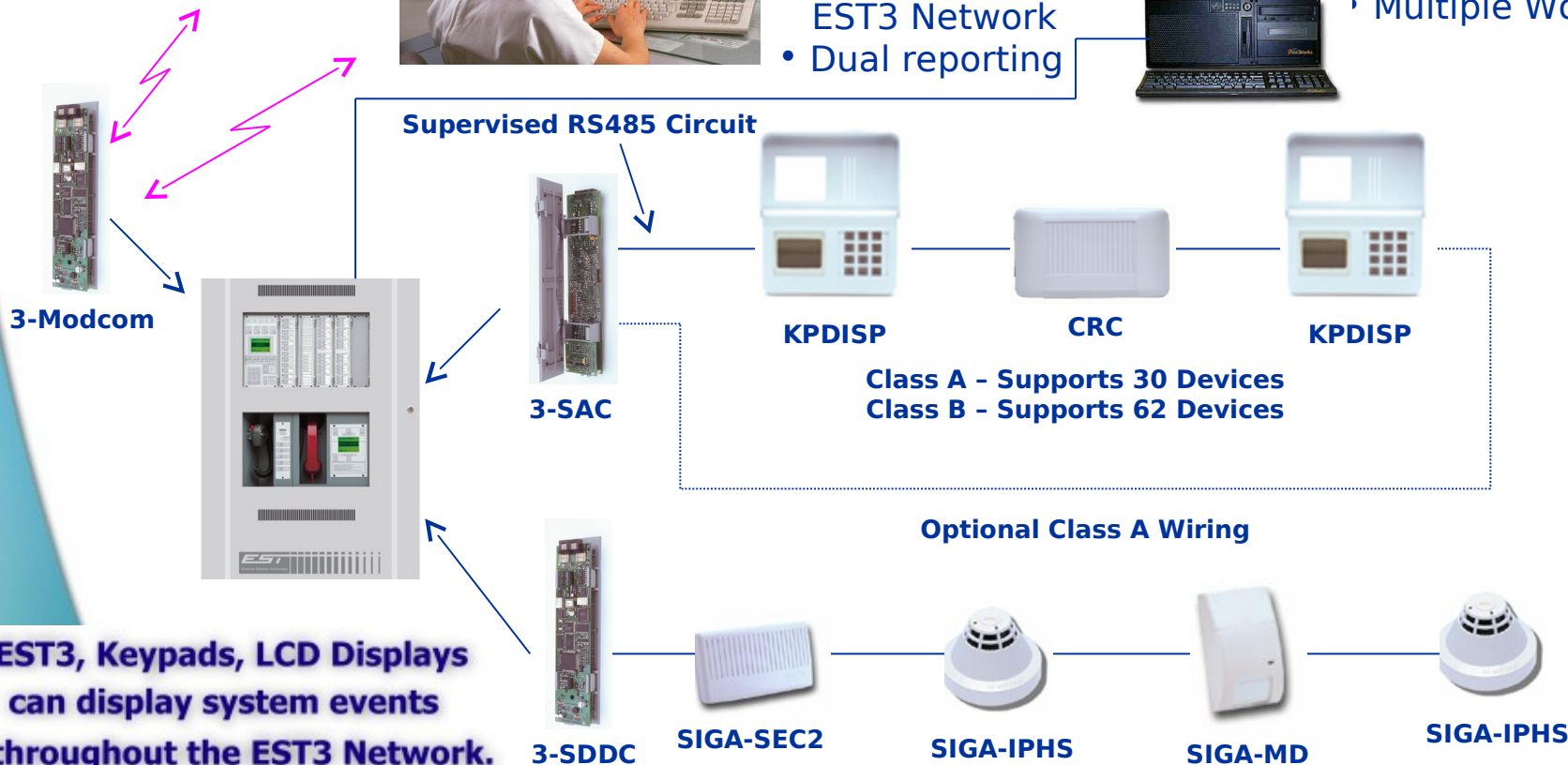
- 255 Accounts
- 10 Modules per EST3 Network
- Dual reporting

Fireworks GUI Workstation



- Command Workstation
- Monitors all events
- Multiple Workstations

Supervised RS485 Circuit



EST3, Keypads, LCD Displays  
can display system events  
throughout the EST3 Network.

Fire Alarm - Access Control - Security - Add Monitoring



# Building Synergy

Access Control Database



Central Station Monitoring    Fireworks GUI Workstation



CCTV Controller



Supervised RS485 Circuit



3-Modcom



3-SAC



KPDISP



CRC



KPDISP

Class A - Supports 30 Devices  
Class B - Supports 62 Devices

- Supports Major Manufacturers

Optional Class A Wiring



3-SDDC



SIGA-SEC2



SIGA-IPHS



SIGA-MD



SIGA-IPHS

EST3, Keypads, LCD Displays  
can display system events  
throughout the EST3 Network.

Alarm - Access Control - Security - Monitoring - Add CCTV Control



***Thank you !***

***From the entire EST team***

***For your time and participation***